In the Claims

1.   **(Currently Amended)** A processor-readable medium comprising processor-executable instructions for:

sending test data to a plurality of clients, wherein sending the test data comprises instructions for varying an amount of test data sent to balance reliability and cost;

receiving a rate R_i which is based at least in part on a rate at which the test data was received by at least some of the plurality of clients; and

calculating a rate R_0 at which to send an image to the plurality of clients, wherein the rate R_0 is a function of at least some of the R_i.

2.   **(Original)** The processor-readable medium as recited in claim 1, wherein sending test data comprises instructions for sending test data to the plurality of clients by operation of a reliable multicast session.

3.   **(Original)** The processor-readable medium as recited in claim 1, wherein sending test data comprises instructions for:

sending an initial transmission of test data;

setting a timer; and

sending additional test data until the timer expires.

4.   **(Original)** The processor-readable medium as recited in claim 1, wherein sending test data comprises instructions for sending a portion of the image at an initial transfer rate.

5.   **(Original)** The processor-readable medium as recited in claim 1, wherein sending test data comprises instructions for:

sending a first portion of the image at a first rate; and

sending a second portion of the image at a second rate.

6.   **(Cancelled)**

7.   **(Original)** The processor-readable medium as recited in claim 1, wherein receiving the rate R_i comprises instructions for receiving a UDP packet from the at least some of the plurality of clients.

8.   **(Original)** The processor-readable medium as recited in claim 1, wherein receiving the rate R_i comprises instructions for receiving data-transfer statistics from the at least some of the plurality of clients.

9. **(Original)** The processor-readable medium as recited in claim 1, wherein receiving the rate R_i comprises instructions for:

setting a timer to indicate a maximum period of time during which to wait for a response from the plurality of clients; and

receiving data-transfer statistics from the at least some of the plurality of clients within the maximum period.

10. **(Original)** The processor-readable medium as recited in claim 1, wherein calculating the rate R_0 comprises instructions for setting R_0 as a function of a minimal value of the rate R_i for all i.

11. **(Original)** The processor-readable medium as recited in claim 1, wherein calculating the rate R_0 comprises instructions for:

dividing the plurality of clients into at least two groups; and

setting R_0 equal to a minimum R_i associated with clients within one of the at least two groups.

12. **(Original)** The processor-readable medium as recited in claim 1, wherein calculating the rate R_0 comprises instructions for:

selecting one of the R_i; and

setting R_0 equal to the selected R_i, less a de-rating factor.

13.   **(Original)** The processor-readable medium as recited in claim 12, wherein selecting one of the R_i comprises instructions for:

forming at least two groups of clients; and

selecting the smallest R_i associated with a client from within the at least two groups of clients.

14.   **(Original)** The processor-readable medium as recited in claim 1, additionally comprising instructions for sending the image at the rate R_0 during a first multicast session.

15.   **(Original)** The processor-readable medium as recited in claim 14, additionally comprising instructions for:

opening a second multicast session; and

sending the image at a rate less than R_0 in the second multicast session.

16. **(Currently Amended)** A processor-readable medium comprising processor-executable instructions for:

sending test data from a server to a client, wherein the test data comprises a first portion of an image sent at a first rate, and a second portion of the image sent at a second rate;

varying an amount of the test data sent to balance reliability and cost;

receiving test data, sent by the server, ~~from a server~~at clients located on a network;

calculating a value for R_i based at least in part on a rate at which the test data was received by each client; ~~and~~

dividing the clients into at least two groups, comprising first and second groups of clients, wherein the first group of clients was able to receive data faster than the second group of clients based on the R_i values; and

opening first and second multicast sessions with the first and second groups, respectively, wherein a transmission rate R_0 of the first session is higher than a transmission rate R_0 of the second session~~sending the rate R_i to the server~~.

17. **(Original)** The processor-readable medium as recited in claim 16, wherein the test data was received during a reliable multicast session.

18.   (Original) The processor-readable medium as recited in claim 16, wherein receiving the test data comprises instructions for:

receiving an initial transmission of test data;

setting a timer; and

receiving additional test data until the timer expires.

19.   (Original) The processor-readable medium as recited in claim 16, wherein receiving the test data comprises instructions for receiving a portion of the image at an initial transfer rate.

20.   (Original) The processor-readable medium as recited in claim 16, wherein receiving the test data comprises instructions for:

decrypting and decompressing the initial transmission of test data; and

writing the decrypted and decompressed test data to a disk.

21.   (Original) The processor-readable medium as recited in claim 16, wherein sending the R_i comprises instructions for sending a UDP packet to the server.

22.   (Original) The processor-readable medium as recited in claim 16, wherein sending the rate R_i comprises instructions for sending data-transfer statistics including the rate R_i to the server in a UDP packet.

23. **(Original)** The processor-readable medium as recited in claim 16, wherein calculating the rate R_i comprises instructions for setting the rate R_i equal to an average rate at which data was received.

24. **(Original)** The processor-readable medium as recited in claim 16, wherein calculating the rate R_i comprises instructions for setting rate R_i equal to a minimum rate at which data was received.

25. **(Original)** The processor-readable medium as recited in claim 16, wherein calculating the rate R_i comprises instructions for:

setting the rate R_i as a function of the rate at which data was received; and

de-rating the rate R_i to result in a safer value.

26. **(Original)** The processor-readable medium as recited in claim 16, additionally comprising instructions for receiving an image at a rate R_0 during a first multicast session if R_0 is less than R_i.

27. **(Original)** The processor-readable medium as recited in claim 26, additionally comprising instructions for receiving the image during a second multicast session if R_0 is more than R_i.

28.   **(Currently Amended)** A method for determining a transfer rate to multicast an image, comprising:

sending test data from a server to a plurality of clients, wherein the test data comprises a first portion of an image sent at a first rate, and a second portion of the image sent at a second rate, and wherein the sending allows varying an amount of the test data sent to balance reliability and cost;

calculating R_i values for at least some of the plurality of clients based at least in part on rate of receipt of the test date;

sending the R_i values from each of the plurality of clients to the server for each of the first and second portions of test data; and

dividing the clients into at least two groups, wherein the groups are based on faster and slower values of the calculated R_i;

opening first and second multicast sessions with first and second groups of clients, respectively; and

calculating a ratefirst and second rates R_0 at which to send an the image from the server to the plurality of clientsfirst and second groups, wherein the rate rates R_0 is are a function based at least in part on at least some of the R_i values, and one of the rates R_0 is faster than the other.

29.   **(Original)** The method as recited in claim 28, wherein the test data is sent over a reliable multicast session.

30. (Original) The method as recited in claim 28, wherein sending test data comprises:

sending an initial transmission of test data from the server;

setting a timer on the server;

receiving the initial transmission of the test data on each client;

setting a timer on each client;

sending additional test data until the timer on the server expires.

31. (Original) The method as recited in claim 28, wherein sending test data comprises sending a portion of the image at an initial transfer rate.

32. (Cancelled)

33. (Original) The method as recited in claim 28, wherein the test data is:

a selected percentage of the image;

a selected amount of data obtained from the image; or

data obtained from the image of a size calculated for transmission within a selected period of time.

34. (Original) The method as recited in claim 28, wherein the R_i values are sent from at least some of the plurality of clients to the server via a UDP packet.

35.   **(Original)** The method as recited in claim 28, wherein sending R_i values comprises:

setting a timer on the server to indicate a maximum period of time during which the server will wait for a response from the plurality of clients; and

transferring data-transfer statistics from the plurality of clients to the server within the maximum period.

36.   **(Original)** The method as recited in claim 28, wherein calculating the rate R_0 comprises setting the rate R_0 equal to a minimum of the R_i values for all i.

37.   **(Original)** The method as recited in claim 28, wherein calculating the R_0 comprises:

dividing the plurality of clients into at least two groups; and

setting R_0 as a function of a minimum R_i associated with clients within one of the at least two groups.

38.   **(Original)** The method as recited in claim 28, wherein calculating the R_0 comprises:

selecting one of the R_i; and

setting R_0 as a function of the selected R_i, less a de-rating factor.

39.   **(Original)** The method as recited in claim 28, wherein calculating the rate R_0 comprises:

forming at least two groups of clients, wherein the forming is based on the R_i's of the clients;

selecting a smallest R_i associated with a client from within the at least two groups of clients; and

setting R_0 as a function of the selected smallest R_i.

40.   **(Original)** The method as recited in claim 28, additionally comprising sending the image at the rate R_0 during a first multicast session.

41.   **(Original)** The method as recited in claim 40, additionally comprising:

opening a second reliable multicast session; and

sending in the second multicast session at a rate less than R_0.

42.   **(Currently Amended)** A server, comprising:

means for sending test data to a plurality of clients, wherein the test data is a subset comprises first and second portions of an image to be sent which are sent to the plurality of clients at first and second data transfer rates, wherein the means for sending test data allows varying an amount of test data sent to balance reliability and cost;

means for receiving a rate R_i, from each of the plurality of clients, wherein the R_i are based at least in part on a rate at which the test data was received by at least one of each of the plurality of clients; and

dividing the plurality of clients into at least two groups, comprising first and second groups of clients, wherein the first group of clients was able to receive data faster than the second group of clients;

means for calculating a rate first and second data transfer rates R_0, for each of first and second multicasts, at which to send the image to the plurality first and second groups of clients, respectively, wherein the rate rates R_0 is are a function of the R_i, and the first R_0 is faster than the second R_0.

43.   **(Original)** The server as recited in claim 42, wherein the means for sending test data comprises means for operating a reliable multicast session.

44.   **(Original)** The server as recited in claim 42, wherein the means for calculating the R_0 comprises means for setting the rate R_0 equal to a minimum value of the rate R_i for all i.

45.   **(Cancelled)**

46.   **(Original)** The server as recited in claim 42, wherein the means for sending test data is configured to send:

a selected percentage of the image;

a selected amount of data obtained from the image; or

data obtained from the image of a size calculated for transmission within a selected period of time.

47.   **(Original)** The server as recited in claim 42, additionally comprising means for sending the image at the rate R_0 during a first multicast session.

48.   **(Original)** The server as recited in claim 42, wherein the means for receiving the rate R_i comprises:

means for setting a timer to indicate a maximum period of time during which to wait for a response from the plurality of clients; and

means for receiving data-transfer statistics from the at least some of the plurality of clients within the maximum period.

49.   **(Currently Amended)** The server as recited in claim 42, wherein the means for sending test data comprises means for setting a timer to indicate a maximum period of time during which to send the test data to the plurality of ~~clients~~clients.

50—72. (Cancelled)